

SRS UPDATE

NEWS FROM THE SAVANNAH RIVER SITE • MARCH/APRIL 2004



Before and after: With the completed demolition of the 320-M Alloy Manufacturing Facility, SRS workers have met the challenge of safely demolishing six M Area facilities in less than 18 months. (Full story, page 3.)



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DUN reaches its final resting place in Nevada

Efforts of more than a year paid off in March as the first shipment of the Savannah River Site's treated and solidified Depleted Uranyl Nitrate (DUN) left Perma-Fix Materials and Energy Corp. (M&EC) in Oak Ridge, Tenn., heading for final disposal at the Nevada Test Site (NTS).

The material had been stored in SRS's F Area, which is undergoing deactivation. Treatment at M&EC and permanent disposition at NTS is the agreed-upon disposal path for DUN.

Treatment at M&EC turned the liquid solution into a nonhazardous, concrete-like low-level waste (LLW). The isolated, dry desert will become the

final home for the DUN, and for many other wastes sent from SRS and other DOE sites.

At NTS' Area 3, sunken craters of past underground

nuclear tests are excavated and prepared for use as LLW disposal sites. These craters will be filled with six or seven layers of low-level waste. Each layer is covered with three to six feet of soil before the next layer of LLW is deposited.

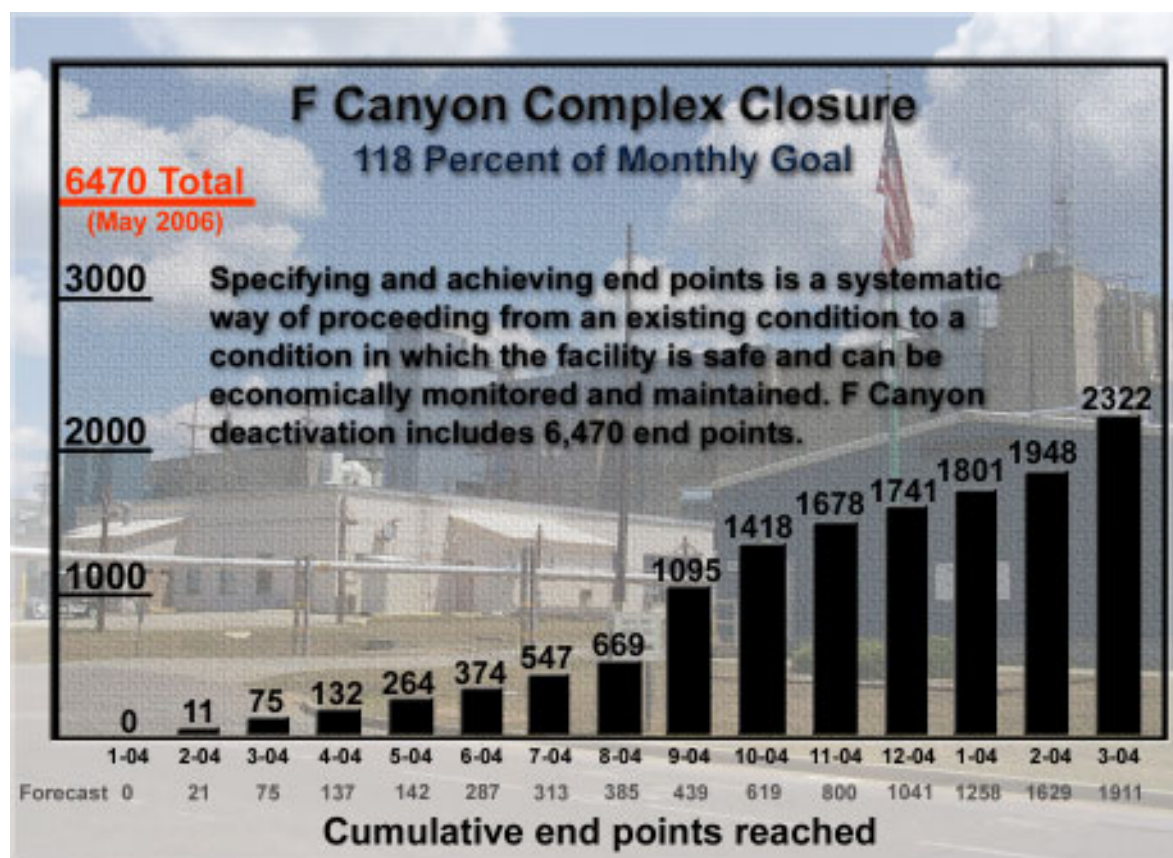
SRS's DUN began arriving at NTS March 16. As shipments arrive, paperwork is reviewed and the drums of

treated DUN are inspected and off-loaded from the trailer. Then the drums are radiologically tested and placed within the prepared crater.

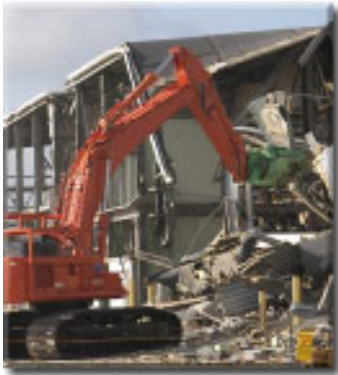


Aerial view of Nevada Test Site's Area 3.

SRS MILESTONES



SRS's demolition project beats fast-track schedule



A jaw-like cutting attachment was used to accelerate demolition.

With the completed demolition of the 320-M Alloy Manufacturing Facility, Savannah River Site (SRS) workers have met the challenge of safely demolishing six M Area facilities in less than 18 months.

The project was actually completed a month ahead of an aggressive schedule.

Historically, M Area was the beginning of the production process at SRS. Here, facilities produced materials for use in SRS reactors. All operations have been shut down since the late 1980s.

In late September 2002, Ralph DiSibio, then president of Washington Energy & Environment, rolled out a footprint reduction initiative for M Area. The initiative was for WSRC to dismantle and remove over 150,000 square feet of contaminated footprint in FY03, using only funds from site cost savings and productivity improvements. No budgeted funding was provided.

Project Manager Tony Long, who oversaw the work at two of the buildings, recalls the “hit the ground running” start. “The challenges were huge,” he says. “313-M had not even been deactivated (equipment removed, utilities isolated, temporary power established, characterization of facility hazards, etc.).”

Gay Fussell, project manager for the other four buildings, says her most challenging task was the transfer of nuclear materials in storage buildings 330-M and 331-M to Envirocare of Utah.

“The two buildings were the key to successfully accomplishing numerous schedule milestones, as the material had to be removed and shipped before demolition could begin on 313-M,” she explains. “My team did an outstanding job of safely packaging the depleted uranium and loading the trucks. More than 150 shipments were completed ahead of schedule, with no deviations on receipt at Envirocare.”

The remainder of M Area is scheduled to be razed by the end of 2006.

234-7H receives approval to go “hot”

The Tritium Facility Modernization and Consolidation project, more commonly called TCON, has reached another major milestone with approval to begin radioactive operation of building 234-7H. The TCON project was undertaken to consolidate all of the tritium processing and handling activities into two updated facilities to improve safe operations, reduce environmental releases, increase productivity and significantly reduce future operating costs.

Construction of the 234-7H facility allows the reservoir life storage and material examination functions to be transferred from the 232-H Material Test Facility to this new building, resulting in the eventual shutdown of the 50-year-old 232-H. The new building houses life storage equipment, contaminated material examination equipment and motor control center equipment.

To prepare for radioactive operations, a Readiness Assessment was conducted the last week of March, with authorization to introduce tritium received on April 7. The first piece of contaminated equipment was moved into the new facility on April 12.

Contaminated equipment relocation and startup testing are currently scheduled to be completed in July.



Tritium modernization and consolidation continues with the building of 234-7H.

WSRC begins implementation of new strategic plan

Over the past several months, WSRC has been taking a hard look at what it is going to take for the site and the company to be successful over the next three years and beyond. The result is the new WSRC Strategic Plan.

All of the elements in the plan are geared toward success in three key areas: maximizing safe performance, equipping the workforce and exercising leadership.

At the heart of the Strategic Plan are the new Mission, Vision, Core Values and Leadership Principles. Together, the Mission and Vision spell out what the company is here to do and where we are trying to go. The Values and Principles outline *how* we will accomplish our work, by defining those values that are important to us, and by identifying behaviors that are expected of all employees in leadership positions, whether they are technically classified as managers or not.

“A well thought-out plan provides the foundation needed to move toward a successful and productive future.”

-WSRC President Bob Pedde

The other major element of the plan is a list of concrete action items, most of which are to be implemented on a short schedule, that will lead to success in the key areas. The actions address improving our performance in areas such as safety, contract deliverables, project management, workforce planning, infrastructure and support services, cost effectiveness, innovation and utilization of technology, integration of new missions, and customer and stakeholder relationships.



WSRC Mission

To serve our DOE customer and the Nation with excellent results in safety, security, conduct of operations, disciplined project management, innovative technology applications, and best management practices in order to:

- Accelerate site cleanup and disposition nuclear materials and waste;
- Meet customer goals in the areas of national defense, nuclear nonproliferation and security; and
- Provide DOE with the greatest long-term value from the Savannah River Site, its infrastructure and intellectual assets in ongoing and new mission areas.

WSRC Vision

WSRC's success in accelerated cleanup, Defense Programs and Nuclear Nonproliferation Programs will establish the foundation for the utilization of the Savannah River Site for new missions and the continuation of its important role in the region and the nation.

HEU program ships 500th container

The Savannah River Site's HEU (highly enriched uranium) Blend Down program reached a major milestone in March with the completion of its accelerated schedule and the shipment of its 500th container of low-enriched uranium (LEU).

HEU Blend Down is now back on schedule, having recovered from a three-month delay before operations could begin. H Area was ready to begin blending material and commence shipping in March 2003. The Tennessee Valley Authority (TVA) confirmed its readiness to receive the LEU in July 2003.

The program was initiated in part to support the national effort to disposition surplus stockpiles of HEU. To support this effort, H Canyon was modified to increase HEU fuel dissolution rates and processing throughput; H Canyon's Outside Facilities

were modified to include more storage for HEU and to blend this material with natural uranium to produce LEU. This material will be used in the production of commercial reactor fuel to be used by TVA.

When H Area got the green light to ship, low-enriched uranium blending and loading began. The program requires the shipment of approximately 2,800 containers at a rate of nine containers per trailer.

A three-month accelerated production program was begun in January, to reduce the level of HEU stored in H

Area and to recover from the initial three-month delay. On March 17, the 56th trailer was shipped, marking the successful milestone given the team and the internal milestone to ship 500 canisters. This milestone was successfully completed safely and without incident.



Marshall Rodgers (left) and Mike Mayson load the 500th LEU canister.

USC, WSRC sign research collaboration agreement

The University of South Carolina (USC) and WSRC signed a strategic memorandum of understanding (MOU) on March 30 that will allow the two institutions to share resources and to expand significantly on past collaborative research, joint funding proposals, exchange of researchers and teaching activities.

In the agreement, signed by USC President Dr. Andrew A. Sorensen and Savannah River Technology Center (SRTC) Director Dr. G. Todd Wright, the research organizations pledge to develop a strong research partnership program in a number of targeted areas, including hydrogen research, fuel cells, bio-defense and environmental research. These targeted areas build on existing complementary strengths at USC and SRTC.

"We are excited to announce this MOU with USC," said Dr. Wright. "By combining our resources, we will be able to expand opportunities for collaborative research and the advancement of educational opportunities. This MOU formalizes the excellent joint-research efforts already under way between USC and SRTC."



University of South Carolina photo

From left: USC VP of Research and the Division of Health Sciences Harris Pastides, USC President Andrew Sorensen, USC-Aiken Chancellor Thomas Hallman, SRTC Director Todd Wright and WSRC President Bob Pedde.

Czech earns top local scouting award

Greg Czech's sons reached the pinnacle of scouting when they became Eagle Scouts, but they have nothing on their dad – he recently received the highest honor given by the local Boy Scout organization, which covers 13 counties in Georgia and South Carolina.

Czech received the Silver Beaver Award from the Georgia-Carolina Boy Scout Council – one of only a handful given each year. It is presented as a result of continuous, substantial, dedicated service to the community and the Boy Scout organization.

His record includes a long list of accomplishments and recognitions resulting from decades of leadership and service to his church, his profession, the Navy,

various youth sports, and, of course, scouting.

Of all the activities he's been involved in over the years, Czech says the most meaningful was working with youth and watching them advance, and getting his Ph.D. in Boy Scout Commissioner Science.

When he went to the awards ceremony, he says, he expected to see a deserving peer called forward for the honor. "You always kind of hope," he says, "but I didn't expect it. Everyone there told me it was long overdue, so that made me feel good."

The next step would be recognition on the regional level (Silver Buffalo), the national level (Silver Antelope) and the international level (Silver Wolf).



Greg Czech displays his Silver Beaver Award.

Making "sweet music"

During working hours, Darryl Hudson is a Quality Verification Inspector that heads up the high-tech 717-A Dimensional Inspection Facility. Ronnie Davis works at 241-102H as a Field Procurement Engineer in the PMMS Material and Logistics group. In their off-time, however, they are the lead singer/guitarist and bass player, respectively, of Savannah River Grass, which has come to be admired as one of the area's favorite bluegrass bands.

Savannah River Grass has recently been rated as high as Number 10 on the Bluegrass Rules Top 100 National Survey. They are now considered a regional band and tour outside of the local area. They have produced one CD, "The Old Crossroads."

Last fall, the band appeared as the opening act for Mountain Heart, which was voted the Number One Bluegrass Band of the Year by the International Bluegrass Music Association. They are opening for Mountain Heart again at the Aiken Bluegrass Festival at the Washington Center for the Performing Arts, April 30.



The bluegrass band, Savannah River Grass.



Sherri Rudder

Sherri Rudder, OPQC First Quarter Winner

The 2004 First Quarter Office Professional Recognition Winner is Sherri Rudder of Soil and Groundwater Closure Projects, Projects Administration.

"Sherri's dedication to her assigned tasks is very contagious and inspires other team members to emulate her enthusiasm. She continues to strive for excellence in her assignments, and she works hard to benefit all those who surround her in accomplishing their goals as well," says Ron Rodger, Sherri's nominator.

Wilhite receives prestigious Don Orth Award



SRTC chemist Elmer Wilhite receives the Don Orth Award for Technical Excellence from SRTC Director Dr. Todd Wright.

SRS recently honored Elmer Wilhite, a chemist with SRTC, with the Donald A. Orth Award of Merit for his long-standing research and leadership and for his pioneering work in low-level waste disposal.

The Orth Award, which celebrates exceptional achievements in technical excellence and professional leadership, was presented to Wilhite for 30 years' worth of contributions in the area of environmental and low-level waste management. His contributions span fundamental environmental science, low-level waste process improvements and the development of the Saltstone facility and E Area vaults at SRS.

"Elmer Wilhite is an internationally recognized expert in nuclear waste disposal technology," says SRTC Director Dr. Todd Wright "He has helped to direct SRS's low-level waste disposal to ensure that the environment and the public are protected. He helped pioneer the development of the Saltstone facility, E Area vaults and made possible SRS becoming the DOE Complex leader in low-level waste disposal and treatment technology."

SERVICE ANNIVERSARIES

35 Years: Willys Brotherton Jr, William Bendorf, Richard Geddes, Henry Harris, Paul Huber, Daniel Jones, Bruce Lawrence, Daniel Malizia, Terry McNew, Brant Morowski, Dennis Scheyer.

30 Years: James Arflin, Hellen Bond, Andrew Byrne, Tami Capeletti, Henry Cashwell Jr, Thomas Clark, Jackie Collins, Phil Collins, William Faulkner, Eugene Fuss, Charles Goergen, Paul Gonzalez, Thomas Harris, Ode Herzog, William Johnson Jr, Jawahar Kukreja, Priscilla Langford, Ray Lewis, William Martin, Clinton Nicholson Jr, Daniel Odell, Valerie

Perella, Teri Peters, James Matta, Brent Rankin, David Rohr, Mark Sanders, Robert Schwamberger, Dennis Storey, Thomas Varallo, Walter Wall, James Wilkins, Kenneth Wilson, William Wilson Jr.

25 Years: Lee Barnes Jr, Roland Brant, Jeffrey Brault, John Cathey, Charles Coleman, James Cook, James Deer, Lloyd Flemming, Michael Garner, Roy Geiselhart, Joel Guilherme, Theresa Harley, Wanda Lassetter, Halkard Mackey Jr, Ralph Malone, Daniel Mangialetto, Patrick Mihealsick, Wanda Morgan, Michael Skinner, Lloyd Thomas, Willie Walker.

Retirements: Calvin Carr, Thomas Crisman, Bobby Dunbar, Overn Epps, Willie Frazier Jr, Michael Glover, Delores Green, Michael Gregory, Gerald Huff Sr, Laura Ivey, Priscilla Langford, Mary Livingston, Jim Manahan, Geneva Mance, Gary Miller, Samuel Moody, Rozzie Ott, Tommie Ritter, Rick Seiersen, May Thompkins, William Tucker, Alfred West.

SRTC device searches for signs of life



The quest for signs of life on Mars is taking place in a remote desert in northern Chile.

Searching for life on Mars – or even extinct life – is a daunting task. That's why researchers, with the help of an instrument developed at the Savannah River Technology Center (SRTC), are investigating some of the most desolate spots on Earth. In this search for life, NASA scientists are exploring the interior of the Chilean Atacama Desert, the most arid region on Earth. This desolate desert appears to be void of nearly any signs of life – not just a lack of mammals, birds, reptiles or insects, but barely evidence of any spores or bacteria.

In this bleak environment, researchers with NASA's Jet Propulsion lab are using a biological detection device developed at SRTC known as ACE (Atmospheric Contaminate Extractor) to search for airborne microbial life.

"We are proud to be a part of this investigation to bring new scientific understanding of the Atacama Desert's habitat," says Dr. Todd Wright, director of SRTC. "The efforts to find even the most minuscule clues to life's by-products in this barren desert can have distinct analogies to the search on Mars."

SRTC's Dr. Cliff Carlson, along with Dr. Paula Cable-Dunlap and Jeff DeGange, designed ACE to collect any aerosol, including chemical agents, radioactive particles, microorganisms, residual substances from explosives, and by-products of manufacturing processes.

NASA scientists plan similar experiments with ACE in the Mohave Desert.



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Westinghouse Savannah River Company
P. O. Box 616
Aiken, SC 29802